UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte MARTIN SCHOLZ

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Appeal 2017-000772
Application 12/243,051
Technology Center 2100

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Before ALLEN R. MacDONALD, JOHN D. HAMANN, and
MATTHEW J. McNEILL, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134(a) from a final rejection of claims 1, 2, 4–15, 17, and 20–25. We have jurisdiction under 35 U.S.C. § 6(b).

Representative Claims

Representative claims 1, 13, and 14 under appeal read as follows (emphasis and formatting added):

1. A method of classifying ***an input data item***, comprising:

in response to a first query for a first category of a hierarchy of categories that includes a multi-level arrangement of categories, labeling, by a system including a processor, first data items in search results responsive to the first query with the first category;

in response to a second query for a second category of the hierarchy of categories, labeling, by the system, second data items in search results responsive to the second query with the second category;

adding, by the system, the first data items and the second data items to a set of data items that are labeled with respective categories of the hierarchy of categories;

using a classifier executing in the system to identify, from the set of data items, neighboring data items of ***the input data item***; and

according to metric values relating the neighboring data items to ***the input data item***, determining, by the system, whether at least one category is assignable to ***the input data item*** from among the hierarchy of categories,

wherein the determining involves processing the hierarchy of categories from more specific categories to less specific categories,

     wherein at least a given one of the more specific
categories is at a different level of the hierarchy of
categories than at least a given one of the less specific
categories.

  13. The method of claim 1, further comprising:

  adding *the input data item* to the set of data items in
response to determining that the input data item has been
classified with a respective category with greater than a
predefined confidence threshold.

  14. The method of claim 1, further comprising providing
information technology services, wherein the providing, using,
and determining tasks are part of the information technology
services.

Rejections[1]

  The Examiner rejected claims 1, 2, 4–15, 17, and 20–25 "under

35 U.S.C. [§] 101 because the claimed invention is directed to [non-statutory

subject matter in the form of] a judicial exception (i.e., a law of nature, a

natural phenomenon, or an abstract idea) without significantly more." Final

Act. 7 (emphasis omitted).[2]

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[1] The Examiner's rejection of claim 14 under 35 U.S.C. § 112(b) or
35 U.S.C. § 112 (pre-AIA), second paragraph, as being indefinite (Final Act.
8), has been withdrawn (Ans. 3).
[2] Claims 1 and 14 are argued separately. Separate patentability is not argued
for claims 2, 4–13, 15, 17, and 20–25. Except for our ultimate decision, the
§ 101 rejection of claims 2, 4–13, 15, 17, and 20–25 is not discussed further
herein.

The Examiner rejected claims 1, 2, 6–13, 15, 17, and 20–25 under 35 U.S.C. § 103(a) as being unpatentable over the combination of USPTO (listed at page 9 of the Final Action) and Dorie et al. (US 2009/0043797 A1; pub. Feb. 12, 2009).[3]

The Examiner rejected claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over the combination of USPTO, Dorie, and Duda et al. (Pattern Classification 174–187 (John Wiley and Sons, 2nd ed. 2001)).[4]

Section 101 Case Law

Eligibility under 35 U.S.C. § 101 is determined using the *Alice/Mayo* framework. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014). The first step involves determining whether the claims at issue are directed to a patent-ineligible concept. *Id.* at 2355. The second step involves determining whether the elements of the claim contain an inventive concept sufficient to transform a claimed abstract idea into a patent-eligible application. *Id.* at 2357. The "inventive concept" may arise in one or more of the individual claim limitations or in the ordered combination of the limitations. *Alice*, 134 S.Ct. at 2355.

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[3] Claims 1 and 13 are argued separately. Separate patentability is not argued for claims 2, 6–10, 12, 15, 17, and 20–25. Claim 11 is only argued by reference to claim 1. App. Br. 26. Therefore, the rejection of claim 11 turns on our decision as to claim 1. Except for our ultimate decision, the § 103 rejection of claims 2, 6–12, 15, 17, and 20–25 is not discussed further herein.

[4] Separate patentability is not argued for claims 4 and 5. Rather, these claims are argued by reference to claim 1. App. Br. 26. Therefore, the rejection of these claims turns on our decision as to claim 1. Except for our ultimate decision, the § 103 rejection of these claims is not discussed further herein.

In *Bascom*, the Federal Circuit deferred consideration of the specific claim limitations' narrowing effect for *Alice* step two. *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016). The Federal Circuit held that determining whether the claimed inventive concept is a technical improvement can aid in evaluating the second step in the *Alice/Mayo* framework:

> The district court thus concluded [wrongly] that BASCOM had not asserted adequately that the claims disclose an inventive concept because the limitations, "considered individually, or as an ordered combination, are no more than routine additional steps involving generic computer components and the Internet, which interact in well-known ways to accomplish the abstract idea of filtering Internet content." [*District Court Order*, 107 F. Supp.3d at 655.]
>
> We agree with the district court that the limitations of the claims, taken individually, recite generic computer, network and Internet components, none of which is inventive by itself. BASCOM does not assert that it invented local computers, ISP servers, networks, network accounts, or filtering. Nor does the specification describe those elements as inventive.
>
> However, we disagree with the district court's analysis of the ordered combination of limitations. . . . As is the case here, an inventive concept can be found in the nonconventional and non-generic arrangement of known, conventional pieces. . . . [T]he patent *describes how its particular arrangement of elements is a technical improvement* over prior art ways of filtering such content.

Bascom, 827 F.3d at 1349–50, bracket and emphasis added.

Appellant's Contentions

1. Appellant contends "Claim[] 1 is not directed to an abstract idea pursuant to step 1 of the *Alice* analysis." App. Br. 8 (emphasis omitted). Appellant contends that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 101 because:

> Appellant respectfully submits that claim 1 of the present application *is significantly different from the claim at issue in Cyberfone*. The claim of *Cyberfone* merely relates to collecting information and then separating and transmitting the information according to classification. In contrast, claim 1 of the present application relates to a specific technique of . . . [Appellant recites the steps of the method claim 1].
>
> Claim 1 thus does not recite merely collecting information and then separating and transmitting the information according to classification, as was the case in *Cyberfone*. The claim at issue in *Cyberfone* does not use "a classifier executing in the system to identify, from the set of data items, neighboring data items of the input data item." The claim at issue in *Cyberfone* also does not "determin[e], by the system, whether at least one category is assignable to the input data item from among the hierarchy of categories."

App. Br. 9 (emphasis added).

> The Examiner further asserted that claim 1 is directed "to the process of classification," which according to the Examiner "is old in many arts." Office Action at 7. This characterization of claim 1 does not address *the entirety* of the subject matter that is expressly recited by the language of claim 1.
>
> Any claim can be boiled down to a one-word characterization. Appellant respectfully submits that the characterization of claim 1 as being directed to the process of classification improperly ignores the actual subject matter that is recited in the body of the claim.

App. Br. 9–10 (emphasis added).

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2. Appellant contends "Claim 1 recites subject matter that is sufficient to transform the subject matter of claim 1 into a patent-eligible application, under step 2 of the *Alice* analysis" (Br. 10 (emphasis omitted)). Appellant contends that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 101 because:

> According to the Supreme Court in *Alice*, **step 2** involves a determination of "whether [a claim] contains an '**inventive concept**' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 134 S. Ct at 2357 (emphasis added). The Federal Circuit stated that the **step 2** of the *Alice* framework "is the search for an '**inventive concept**'." *DDR Holdings*, 773 F.3d at 1255 (emphasis added). Another Federal Circuit decision, *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014) states that "any **novelty** in implementation of the idea is a factor to be considered only in the **second step** of the *Alice* analysis." *Ultramercial*, 772 F.3d at 715 (emphasis added).

App. Br. 12.

> The Examiner has erred in asserting that "[t]he fact that a claim may be obvious or **non-obvious** is **not considered** under the *Mayo* test." Office Action at 4 (emphasis added). This assertion by the Examiner is directly contradicted by the specific guidance provided by the Supreme Court and the Federal Circuit.

App. Br. 12.

> [T]he subject matter of claim 1 provides an improvement to the technical field of classifications of data items, which is clearly recognized by persons of ordinary skill in the art to be useful for various purposes, including searches such as *web searches* by search engines over the Internet, *patent searches* in the Patent Office's patent database, *and so forth*.

App. Br. 13 (emphasis added).

> The Examiner asserted that "the fact that hierarchical classification is so widely used by the sciences and technological fields shows that it is a basic tool for those sets of fields." *Id.*

> This analysis by the Examiner does not address the specific guidance provided by the 2014 Interim Guidance, which sets forth that a claim that provides an improvement to another technology or technical field constitutes "significantly more" than the judicial exception itself. The subject matter of claim 1 provides an improvement to the technical field of classification, which the Examiner recognizes can be used for various purposes.

App. Br. 14.

> [C]laim 1 adds "unconventional steps that confine the claim to a particular useful application," namely classification that is useful for various different applications as noted above.
>
> The Examiner questioned "which steps [in claim 1] are unconventional." Office Action at 4. Appellant respectfully submits that, as explained further below, at least the following combination of elements is not taught or hinted at by the cited references:
>
> [Appellant quotes the entire body of claim 1]
>
> Therefore, at least these steps are "unconventional steps" when considered in combination, which confine the claim to a particular useful application, namely the application of performing classification.

App. Br. 14–15.

3. Appellant contends that the Examiner erred in rejecting claim 14 under 35 U.S.C. § 101 because:

> Dependent claim 14 further recites "providing information technology services, wherein the using and determining tasks are part of the information technology services."
>
> Claim 14 recites that the "using" task and the "determining" task of base claim 1 are part of providing information technology services. The provision of information technology services is well recognized by persons of ordinary skill in the art as providing improvements to the functioning of a computer, in this case an information technology system that includes an arrangement of computers and other associated hardware and software.

App. Br. 16.

> 4. Appellant contends that the Examiner erred in rejecting claim 1

under 35 U.S.C. § 103(a) because:

> Dorie has a publication date and a filing date that are both **after** the priority date of the present application. The present application *claims priority to a provisional application filed in January 2008*. The filing date of Dorie is July 28, 2008, which is **after** the priority date of the present application.
>
> Dorie claims priority to a provisional application (60/952,457), filed in July 2007. However, the content of the Dorie provisional application is substantially different from the content of Dorie (the non-provisional application cited in the Office Action). Thus, to the extent that subject matter of Dorie relied upon by the final rejections is not found in the Dorie provisional application, Appellant respectfully submits that such subject matter would not be entitled to the § 102(e) date of the Dorie provisional application.
>
> Appellant *reserves the right* to challenge, in the future, whether or not subject matter of Dorie relied upon by the Examiner constitutes prior art with respect to the present application, based on whether or not such subject matter is supported by the Dorie provisional application.

App. Br. 18–19 (emphasis added).

> 5. Appellant contends that the Examiner erred in rejecting claim 1

under 35 U.S.C. § 103(a) because:

> Appellant respectfully submits that unlike the inter-relationship that exists between the "using a classifier" clause and the "in response to a first query" clause, the "in response to a second query" clause, and the "adding" clause of claim 1, the Examiner has not established that any inter-relationship exists between the subject matter described in EAST-UM/WEST-UM and the subject matter described in ART-UM/ART-DDD.

App. Br. 20.

> [T]he Examiner has not established that such folders in which previous search results produced using the EAST or WEST tool

are populated are used in the context of the AutoRT tool described in ART-UM and ART-DDD.

App. Br. 21.

> It thus appears that the ACE interface described in ART-UM and in ART-DDD is designed for use by a limited subset of users at the USPTO, namely SPEs. However, the EAST and WEST tools appear to be tools used by Examiners to perform searching.
> There is clearly no teaching in the references cited by the Examiner that the ACE interface would use results produced by the EAST and WEST tools.

App. Br. 22.

6. Appellant contends that the Examiner erred in rejecting claim 13 under 35 U.S.C. § 103(a) because:

> [T]here is absolutely no indication whatsoever that the ACE search that is performed in ART-UM involves adding the input data item to the set of data items in response to determining that the input data item has been classified with a respective category with greater than a predefined confidence threshold. What is shown in the results from the ACE search in Fig. 3-2 of ART-UM is a ranked list of classes and subclasses along with respective relevance factors, numbers of hits, and other information. The concept of adding an input data item to a set of data items in response to determining that the input data item has been classified with a respective category with greater than a predefined confidence threshold is clearly not taught or hinted at by ART-UM.

App. Br. 24–25 (emphasis added).

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Issues on Appeal

Did the Examiner err in rejecting claims 1 and 14 as being directed to non-statutory subject matter?

Did the Examiner err in rejecting claims 1 and 13 as being obvious?

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellant's Appeal Brief arguments that the Examiner has erred.

Rejection under 35 U.S.C. § 101

As to Appellant's above contention 1 (directed to claim 1), we disagree. First, we disagree with the premise of Appellant's argument that a perceived difference from the claims in *Cyberfone* results in claim 1 not being directed to an abstract idea. We agree with the Examiner's conclusion, and we note that subsequent to Appellant's Appeal Brief our reviewing court concluded that classifying and storing data in an organized manner is a well-established "'basic concept'" sufficient to fall under *Alice* step 1. *In re TLI Commc'ns LLC*, 823 F.3d 607, 613 (Fed. Cir. 2016). Further, Appellant asserts that the claim steps form a specific technique. However, beyond analogizing to *Cyberfone*, we do not find where Appellant explains how and why the claim steps are not directed to an abstract idea.

Second, we disagree with Appellant's secondary argument that, in addressing *Alice* step 1, the Examiner "does not address the ***entirety*** of the subject matter that is expressly recited by the language of claim 1." App. Br. 10 (emphasis added). Appellant's argument overlooks the Court's guidance

when discussing the *Alice* framework comprising steps 1 and 2. *Alice*, 827
F.3d at 1355 n.3 ("Because the approach we made explicit in *Mayo*
considers all claim elements, both individually and in combination, it is
consistent with the general rule that patent claims 'must be considered as a
whole.'").

As to Appellant's above contention 2 (directed to claim 1), we
disagree. First, Appellant's argument, that novelty is a factor to be
considered only in the second step of the *Alice* analysis, overlooks that this
is a technical centric inventive concept analysis in *Alice* step 2 which
requires the inventive concept be evaluated for resolving a particular
technical problem. *DDR Holdings, LLC v. Hotels.com., L.P.*, 773 F.3d
1245, 1259 (Fed. Cir. 2014) ("[T]he claimed solution amounts to an
inventive concept for resolving this particular Internet-centric problem,
rendering the claims patent-eligible"). Further, our review concludes that as
to the rejection language quoted by Appellant ("'[t]he fact that a claim may
be obvious or **non-obvious** is **not considered** under the *Mayo* test[,]'" (App.
Br. 12)), the Examiner was speaking to the abstract idea rather than the
inventive concept. *DDR Holdings* looks to whether the claim sets forth an
improvement in technology not whether there is an improved abstract idea.
"[U]nder the *Mayo/Alice* framework, a claim directed to a newly discovered
law of nature (or natural phenomenon or abstract idea) cannot rely on the
novelty of that discovery for the inventive concept necessary for patent
eligibility." *Genetic Tech. Ltd. v. Merial, LLC*, 818 F.3d 1369, 1376
(Fed. Cir. 2016).

Appellant also argues that the technical improvement is improved

"web searches by search engines over the Internet" and "patent searches in the Patent Office's patent database." We find neither web searches nor patent searches in claim 1. Nor does Appellant explain particularly what the alleged improvement is as to such searches. We agree with the Examiner's conclusion. As we note above, our reviewing court has concluded that classifying and storing data in an organized manner is a well-established "basic concept" sufficient to fall under *Alice* step 1. *In re TLI Commc'ns*, 823 F.3d at 613. Therefore, we disagree with Appellant's argument (App. Br. 14) that *classification* is a technical field.

Second, although Appellant asserts 'claim 1 adds "unconventional steps that confine the claim to a particular useful application'" (App. Br. 14), we do not find where Appellants have provide support for this assertion, e.g., by explaining how and why any of the claim limitations are unconventional. Rather, Appellant cites the entire body of claim 1 (App. Br. 15) and asserts that "at least these steps are 'unconventional steps.'" *Id.*

As to Appellant's above contention 3 (directed to claim 14), we disagree. We conclude the claim 14 statement that the "tasks are part of the information technology services" is exactly the "mere recitation of a generic computer" the Court warns about in *Alice*. *Alice*, 134 S. Ct. at 2358.

Rejection under 35 U.S.C. § 103(a)

As to Appellant's above contention 4 (directed to claim 1), we disagree. Appellant points out the "present application claims priority to a provisional application filed in January 2008 [01/30/2008]." Then Appellant, without pointing out any particular subject matter, asserts "the

content of the Dorie provisional application is substantially different from the content of Dorie (the non-provisional application cited in the Office Action)." App. Br. 18. Although Appellant asserts the Examiner has erred and asserts the Dorie provisional and non-provisional applications differ, we do not find where Appellants have provide support for these assertions, e.g., by explaining how the applications differ and why that difference causes the rejection to be in error. Rather, we find Appellants' assertions to be conclusory. Such unsupported attorney argument, is entitled to little probative value. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997); *In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984). Also, Appellant's attempt to reserve rights regarding the Dorie reference is unavailing. Rather, Appellant either has rights or does not have them as is appropriate. Appellant's future rights are not increased or extended by any attempt to reserve rights.

As to Appellant's above contention 5 (directed to claim 1), we disagree. Appellant argues "the Examiner has not established that such folders in which previous search results produced using the EAST or WEST tool are populated are used in the context of the AutoRT tool described in ART-UM and ART-DDD." App. Br. 21. Even if we adopt Appellant's position, it is insufficient to show the Examiner erred. Appellant is essentially arguing anticipation when the rejection before us is based on obviousness. We agree with the Examiner that ART-UM shows at least one category [data set] is assignable to the input data item from among a hierarchy of categories [in the USPC classes], that EAST-UM shows creation of new data sets, and that the newly created data sets can form

compound data sets. We conclude that it would have been obvious to classify an input data item against newly created EAST-UM data sets in the same manner that ART-UM classifies against the USPC classes.

As to Appellant's above contention 6 (directed to claim 13), we disagree. The ART-DDD clearly recites using a "high confidence factor" when classifying (page 1-3), and the ART-UM recites that there exists a "High Confidence Floor parameter value" (page 3-231). We agree with the Examiner that ART shows using "a predefined confidence threshold." Final Act. 16.

CONCLUSIONS

(1) The Examiner did not err in rejecting claims 1, 2, 4–15, 17, and 20–25 under 35 U.S.C. § 101, as being directed to non-statutory subject matter.

(2) The Examiner did not err in rejecting claims 1, 2, 4–13, 15, 17, and 20–25 as being unpatentable under 35 U.S.C. § 103(a).

(3) Claims 1, 2, 4–15, 17, and 20–25 are not patentable.

DECISION

The Examiner's rejection of claims 1, 2, 4–15, 17, and 20–25 under 35 U.S.C. § 101, as being directed to non-statutory subject matter, is affirmed.

The Examiner's rejections of claims 1, 2, 4–13, 15, 17, and 20–25 as being unpatentable under 35 U.S.C. § 103(a) are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED[5]

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[5] As the Examiner has shown that all the claims are unpatentable, we do not further reject Appellant's claim 5 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. However, should there be further prosecution of these claims, the Examiner's attention is directed to our following concern.

On October 1, 2008, Appellant filed the original Specification and claims. As filed the Specification and claims recited numerous equations of the form "k (k• 1)." *See, e.g.*, paragraph [0004], [0010], [0011], and claim 5 as originally filed. On September 2, 2011, Appellant filed an amendment changing these numerous equations to now recite that k is greater than or equal to 1, as shown in Appellant's provisional application. On December 5, 2011, Appellant filed an amendment changing these numerous equations to now recite that k is greater than or equal to 2. We have reviewed Appellant's Specification as filed (and provisional application) and do not find support for this equation limitation amendment changing "1" to "2". Additionally, an objection based on new matter should be considered.

Furthermore, to the extent that there is further prosecution, we also direct the Examiner's attention to whether certain method claims contain conditional limitations (e.g., claim 1 recites "in response to"), which may not need to be shown for determining patentability. *See Ex parte Schulhauser*, No. 2013-007847, 2016 WL 6277792, at *4 (PTAB Apr. 28, 2016) (precedential) (holding "[t]he Examiner did not need to present evidence of the obviousness of the remaining method steps of claim 1 that are not required to be performed under a broadest reasonable interpretation of the claim").

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